

FIG. 1

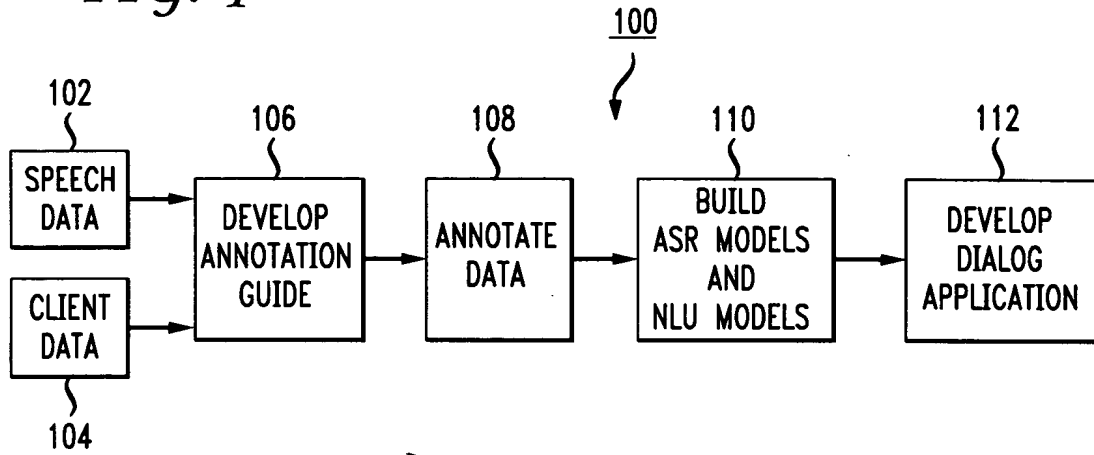


FIG. 2A

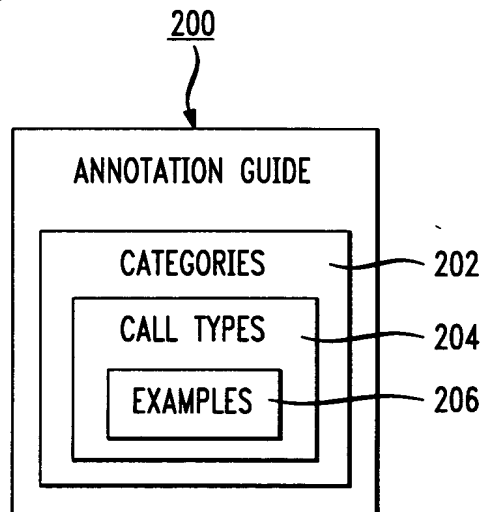
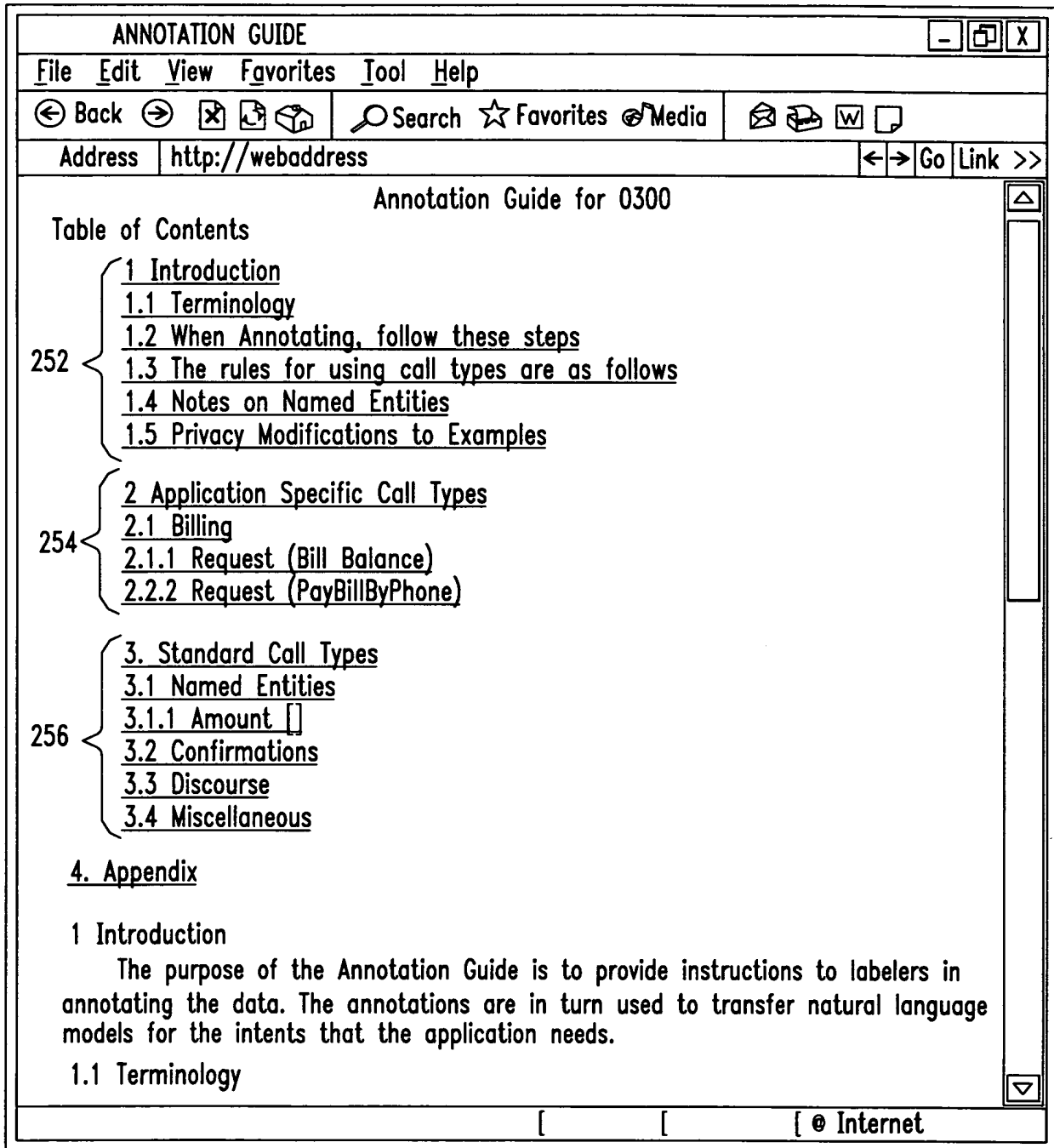


FIG. 2B

250



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FIG. 3A

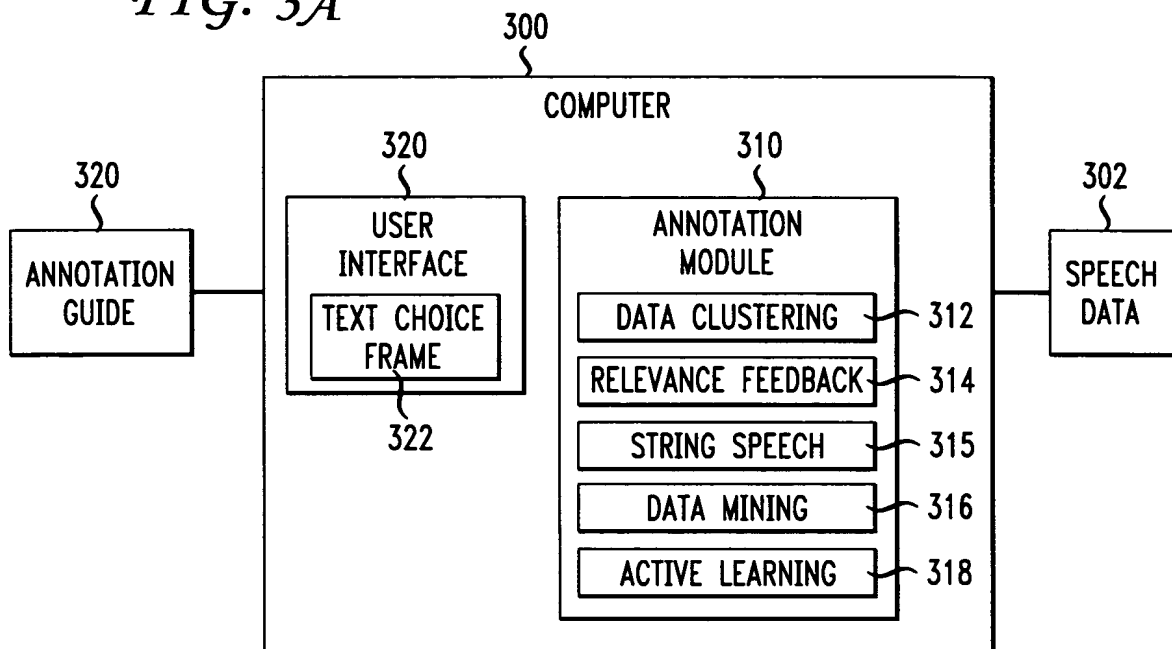


FIG. 3B

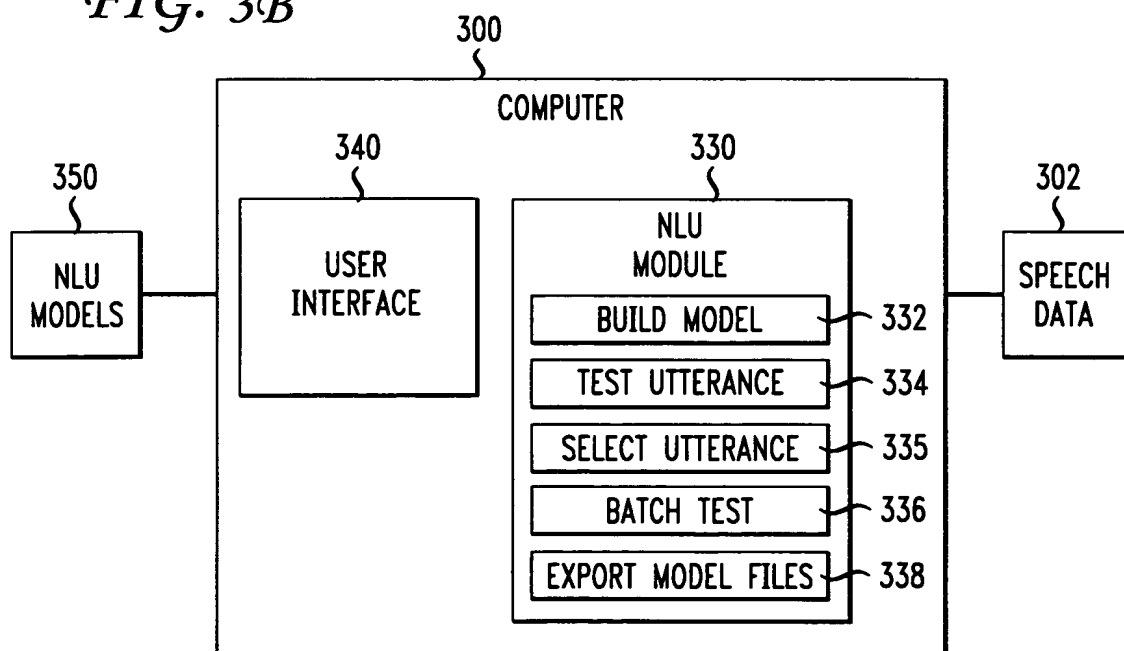


FIG. 4

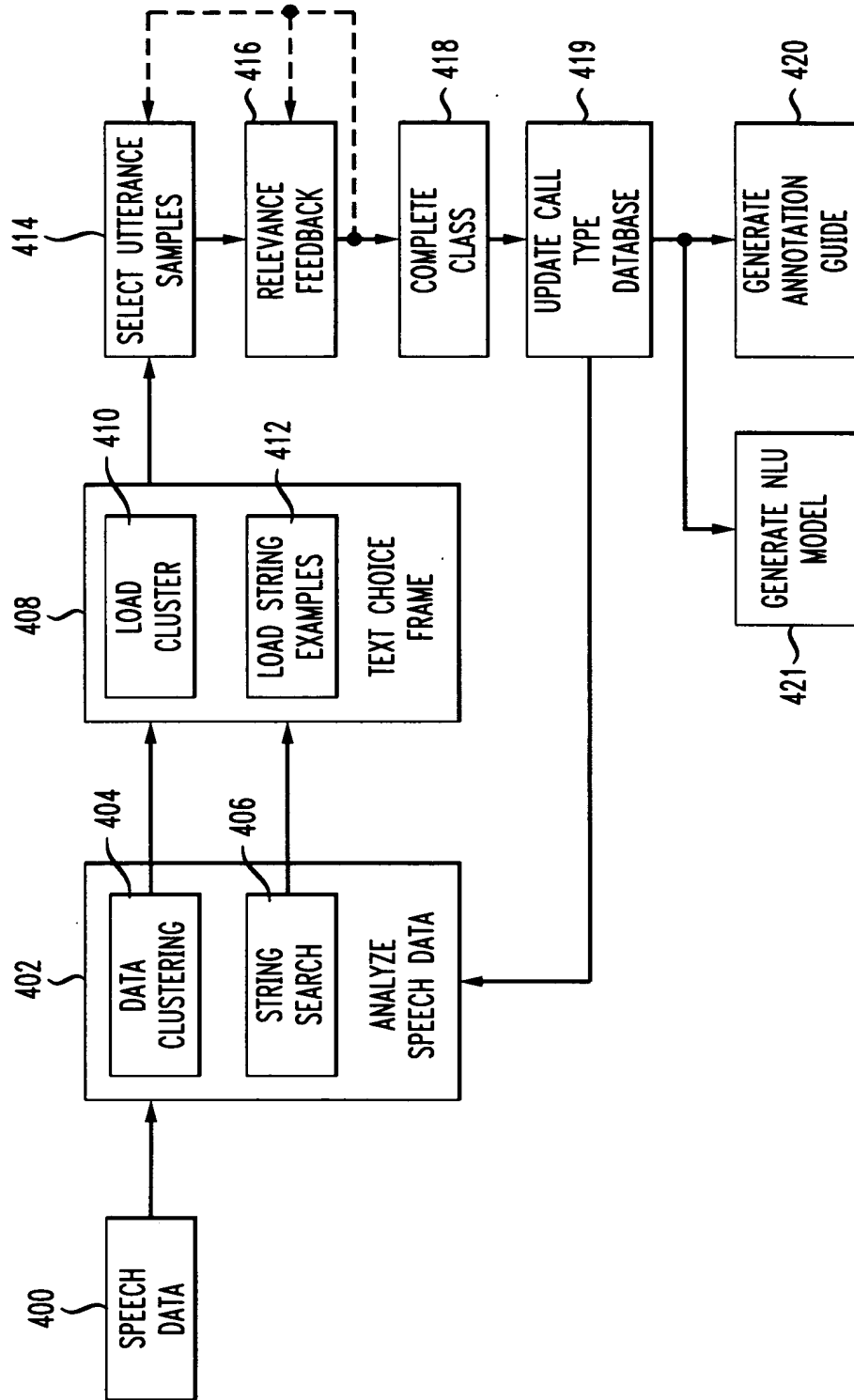


FIG. 5

ANNOMATE GUIDE

File Edit View Favorites Tool Help

Back Search Favorites Media

Address http://webaddress

Generate Report

Generate Guide

2597 Calls

User ID: 1111

Database: 0300

Class: Working Class Description: Working Class

Search Term: null

New Search Commit Abandon Delete

Cluster Mode- Initial Cluster Selection (Utterance 1-10 of 39)

☐ I would like to know my account balance ☐ Skip ☐ Guide Example

☐ I wanna know my balance is ☐ Skip ☐ Guide Example

☐ I'd like to know my balance ☐ Skip ☐ Guide Example

☐ I'd like to know the balance on my account please ☐ Skip ☐ Guide Example

☐ I'd like to know my balance due ☐ Skip ☐ Guide Example

☐ I would like to know my current balance ☐ Skip ☐ Guide Example

☐ I would like to know the balance on my account ☐ Skip ☐ Guide Example

☐ wanna know my balance please ☐ Skip ☐ Guide Example

☐ just wanna know my balance ☐ Skip ☐ Guide Example

Submit Selections Clear All Check All

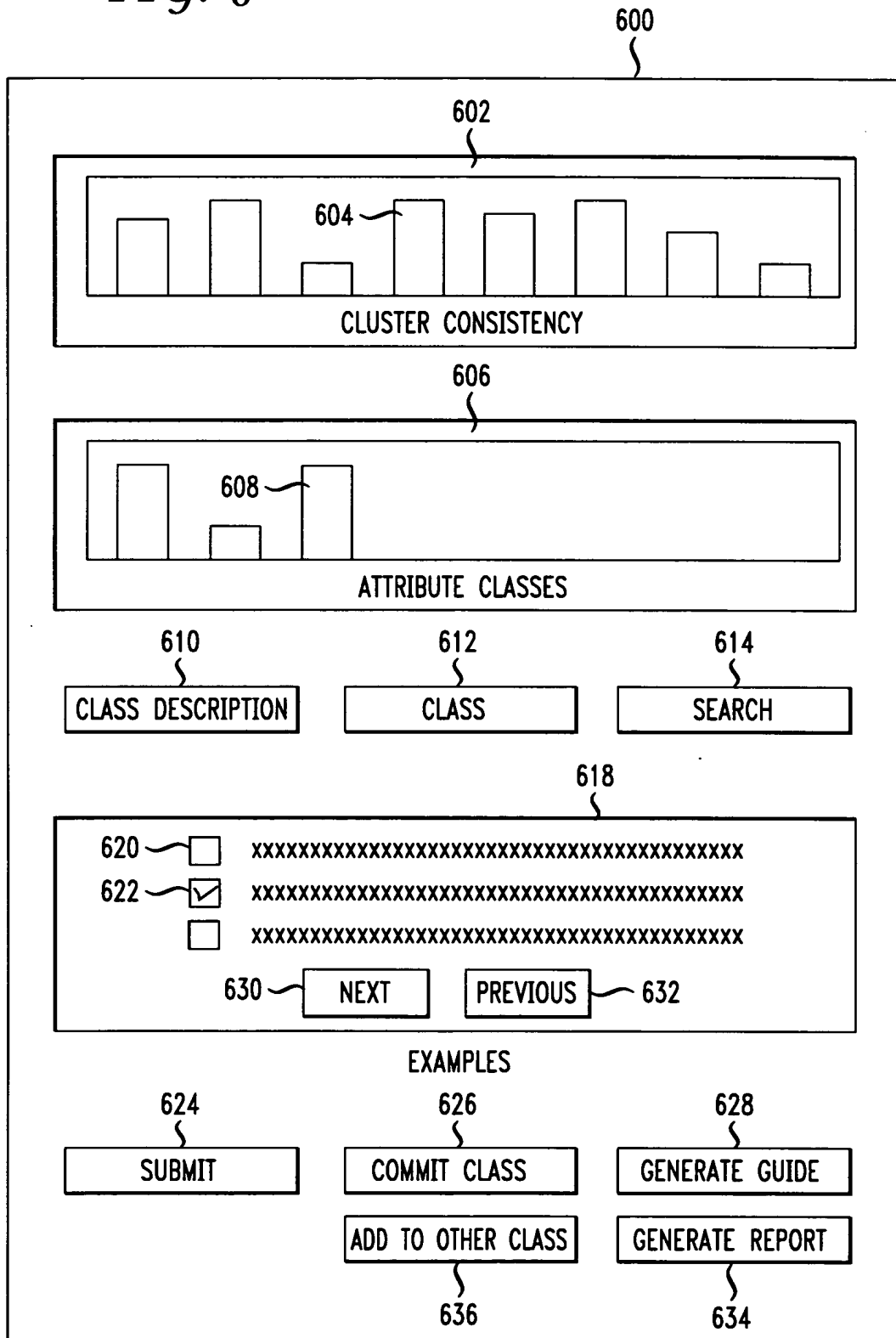
Number of Samples 10 5 0 1 2 3 4

Pos Neg

Internet

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FIG. 6



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FIG. 7

ANNOMATE GUIDE

File Edit View Favorites Tool Help

Back

Search

Favorites

Media

Address http://webaddress

Database: XYZ

Current User: 1114

724

722

720

718

Initial clustering

Threshold: 0.075

Save

Load

Print

Commit

Name: req(refill)

706

Choose primary cluster: 1 req(refill)(139)*

1 I was needing to refill a prescription
ID: 0 Type: [Request(Refill)]

2 I need to refill a prescription
ID: 19 Type: [Request(Refill)]

3 I need to refill my prescription please
ID: 33 Type: [Request(Refill)]

4 I need to get a prescription refill for my wife
ID: 100 Type: [Request(Refill)]

5 I'd like to have a prescription refilled please
ID: 124 Type: [Request(Refill)]

6 I need to order a prescription a refill
ID: 129 Type: [Request(Refill)]

7 I'd like to refill my prescription please
ID: 168 Type: [Request(Refill)]

8 I usually get a recording I just need to get a bunch of prescriptions refilled

712

708

Clear all

Check all

Delete call

Skip call

Merge

Spit

Remove cluster

Add cluster

Copy call>>

Copy call<<

Move call>>

Move call<<

Choose secondary cluster: 11 refill prescript want (26) 0.78

1 I'd like to have a prescription refilled please
ID: 124 Type: [Request(Refill)]

2 I want to refill a prescription
ID: 128 Type: [Request(Refill)]

3 I need to order a prescription a refill
ID: 129 Type: [Request(Refill)]

4 wanted to refill a prescription but i don't know if there's any refills remaining though
ID: 174 Type: [Request(Refill)]

5 well I just wanna know if I have any refills left on any of my prescriptions on our listed with y'all
ID: 190 Type: [Request(Refill)]

6 I was just wondering if there's any refills left on one of the prescriptions for my husband
ID: 220 Type: [Request(Refill)]

7 I want to refill my prescription

710

Clear all

Check all

Delete call

Skip call

714

Internet

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FIG. 8A

810

Application: sbcc 816 Threshold: 0.3 814

Input:

I need to speak with a person in charge of problems 812

Classify

FIG. 8B

820

Threshold: 0.3

Utterance: I need to speak with a person in charge of problems

| Call Type | Score |
|----------------------------|-------|
| Request(Call_Transfer_CSR) | 1 |

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*FIG. 9A*910

Threshold: 0.3

Number of Committed Classes: 37

Number of Unique IDs: 221

Total Number of IDs including clones: 567

912

| ID | Class | Call Type | Utterance |
|------|-------|---------------------------------|------------------------------------------------------------|
| 3659 | no | Request (Call_Transfer_CSR) | <u>I need to speak with a person in charge of problems</u> |
| 461 | no | Ask(Status_Account)_V | <u>is our account active</u> |
| 784 | yes | Report TroublePlacingCCCall) | <u>I have a calling card that is not working</u> |

*FIG. 9B*920

Threshold: 0.3

True Call Type(s): Request(Call_Transfer_CSR)

ID: 3659

Utterance: I need to speak with a person in charge of problems

| Call Type | Score |
|----------------------------|-------|
| Request(Call_Transfer_CSR) | 1 |

FIG. 10A

Threshold: 0.3

1012[Click here to see classification report and overall classification metrics for all the test utterances](#)[Click here to see NLU Model confidence scores for all the test utterances](#) ~ 1014[Click here to see NLU Model probabilities for all test utterances](#) ~ 1016

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FIG. 10B

Click [here](#) to see summary results

Detailed Results

| Number | Utterance | Truth | Above Threshold | Below Threshold |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------|
| 1 | a person in charge of problems | Request (Call_Transfer_CSR) [1.0000000] | | |
| 2 | is our account active | Ask(Status_Account) [0.999995] | | |
| 3 | i have a calling card that is not working | Report (Trouble_PlacingCCCall) [1.000000] | | |
| 176 | i have two a t and t calling cards i want to know which card to active | Request(Status_CC) [1.000000] | | |
| 177 | um i'm trying to use my calling card pin and it won't work it's um under century twenty one galaxy and uh pin number is three two nine five | Report (Trouble_PlacingCCCall) [0.999999] | Request (PIN) [1.000000] | Request(Info_International) [0.0000000] Transcription_Indicated [0.0000000] |
| 178 | someone directly on the phone | Request (Call_Transfer_CSR) [1.000000] | | |
| 179 | inquiry about a corporate credit card | Request(Visa)[1.000000] | | |

FIG. 10C

Summary Results

| Class | Number of tests | Overall Score |
|----------------------------------|-----------------|---------------|
| Explain(Bill_UnrecognizedNumber) | 0 | |
| Transcription_Indicated | 0 | |
| Request(Info_International) | 13 | 0.846 |
| Ask(Bill_CC)_V | 2 | 1.000 |
| Verify(Payment) | 0 | |
| Request(PIN) | 41 | 0.919 |
| Not(Information) | 2 | 0.000 |
| Request(Order_CC) | 37 | 0.879 |
| Request(Info_Rates) | 5 | 0.420 |
| Ask(Trouble)_V | 5 | 1.000 |
| Request(Rates_CC) | 7 | 0.810 |
| Request(Visa) | 18 | 0.886 |
| Request(Status_CC) | 19 | 0.775 |
| Request(Cancel_CC) | 104 | 0.971 |
| Request(Billing_Other) | 1 | 1.000 |

